

NWSTC

Graphics Generator Job Sheets

A Supplemental Resource for the Graphics Generator Template/Product Configuration
Training

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Building and Editing Reference Templates

Objective: Build or edit a reference template using Graphics Generator.

Notes: Graphics Generator **must** be configured on the CHPS Stand Alone instance. Build the template in the order used in this job sheet.

STEP 1 Locate or Create a Reference Template

Step	Action	Notes
1	Open the Stand Alone instance of CHPS.	
2	Click the GraphGen Editor icon or from the IFD Tools menu, select GraphGen Editor .	
Build		Edit
1	Click the Data Viewer panel.	1 Click the Load Product or Template icon. 
2	Click the forecast group folder to expand.	2 Select a product from the list on the Template and Product Manager window.
3	Select a segment from the panel.	3 Click Open .
4	Click the New button in the Editor Tool Bar . 	

STEP 2 Specify Input Time Series

Note: Charts are added in reverse order; the first set of chart series overlays the second.

Step	Action	Notes
1	Click the Input Series panel on the GraphGen Editor GUI.	Labeled A on Figure 1.
2	Click New Provider (to add information manually) or Add from Data Viewer (to populate from the selected segment) to add a new input time series.	Labeled B on Figure 1.
3	Select a provider from the Select Provider pull down menu.	Labeled C on Figure 1.
4	Remove unwanted time series by clicking the red X beside a time series or click the Remove All button.	Optional
5	Click the Use Display Units box to convert the data to display units.	Optional
6	Click the Include Thresholds box to load thresholds associated with the time series.	Optional
7	Click the Set to Default buttons to use arguments instead of hard coded locations.	Optional
8	Click the checkboxes beside the Provider Options to override the start, end, and T0 times.	Labeled D on Figure 1.
9	Use the pull down menus to choose relative or fixed dates. Default is also an option for T0.	Labeled E on Figure 1.
10	Click the Chart Series panel.	Labeled F on Figure 1.

Figure 1

Parameters Editing Panel

Templates
 A Input Series
 F Chart Series
 Appearance
 Output

List of Input Series Providers

#	Provider Name	Parameters
1	SelectTimeSeries	locationId = AGYM7; parameterId = SSTG; filterId = MBRFC_Stages

Select Provider: **C** SelectTimeSeries
 Use Display Units
 Include Thresholds

Provider Options

- Override filterId: MBRFC_Stages
- Override locationId: AGYM7
- Override parameterId: SSTG
- D** Override startTime: T0 **E**
- Override endTime: T0 + 10 days
- Override T0: T0

STEP 3 Specify the Calculations for Each Chart Series

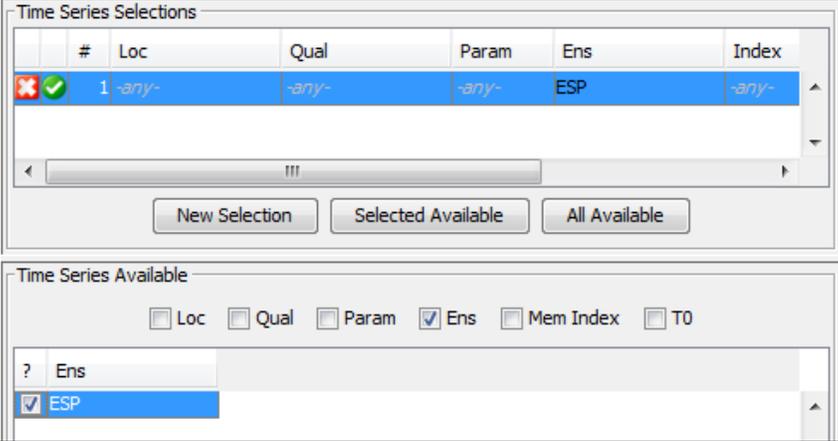
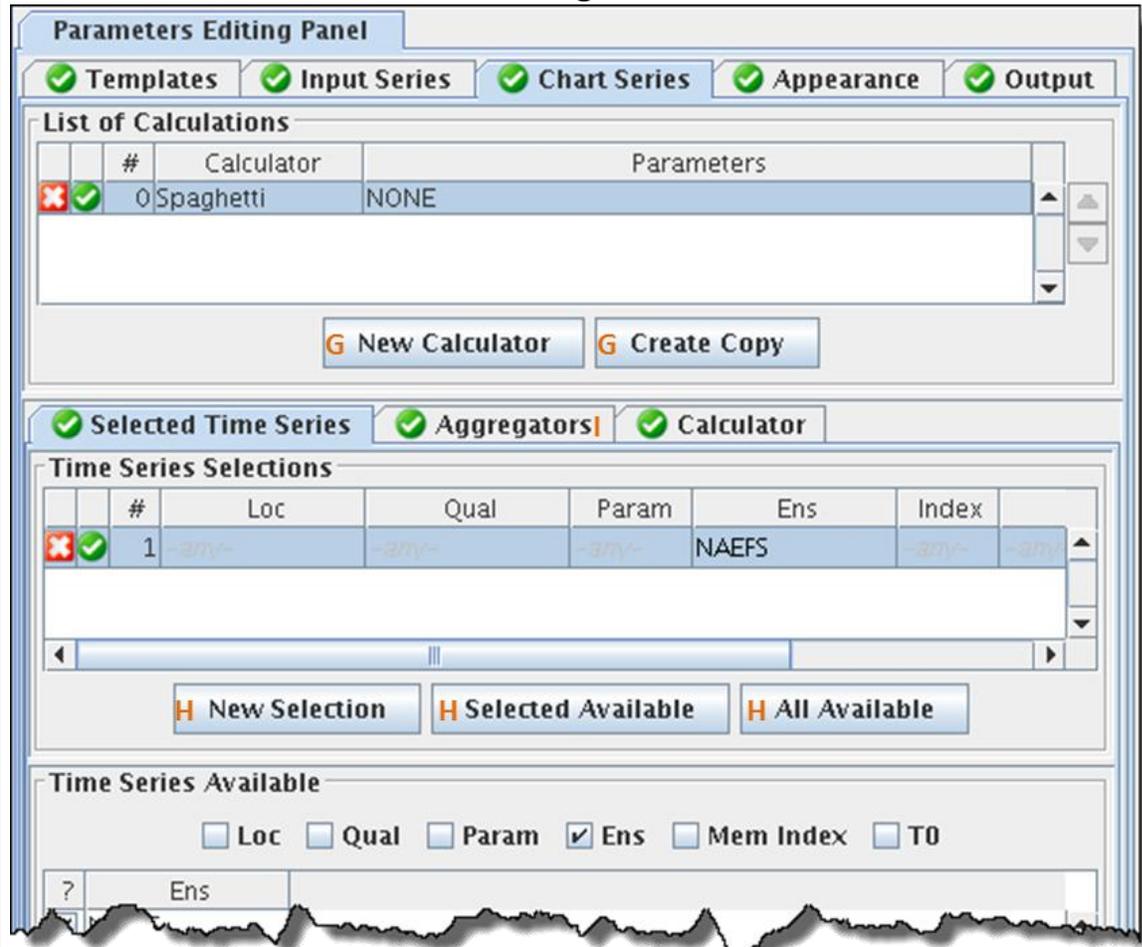
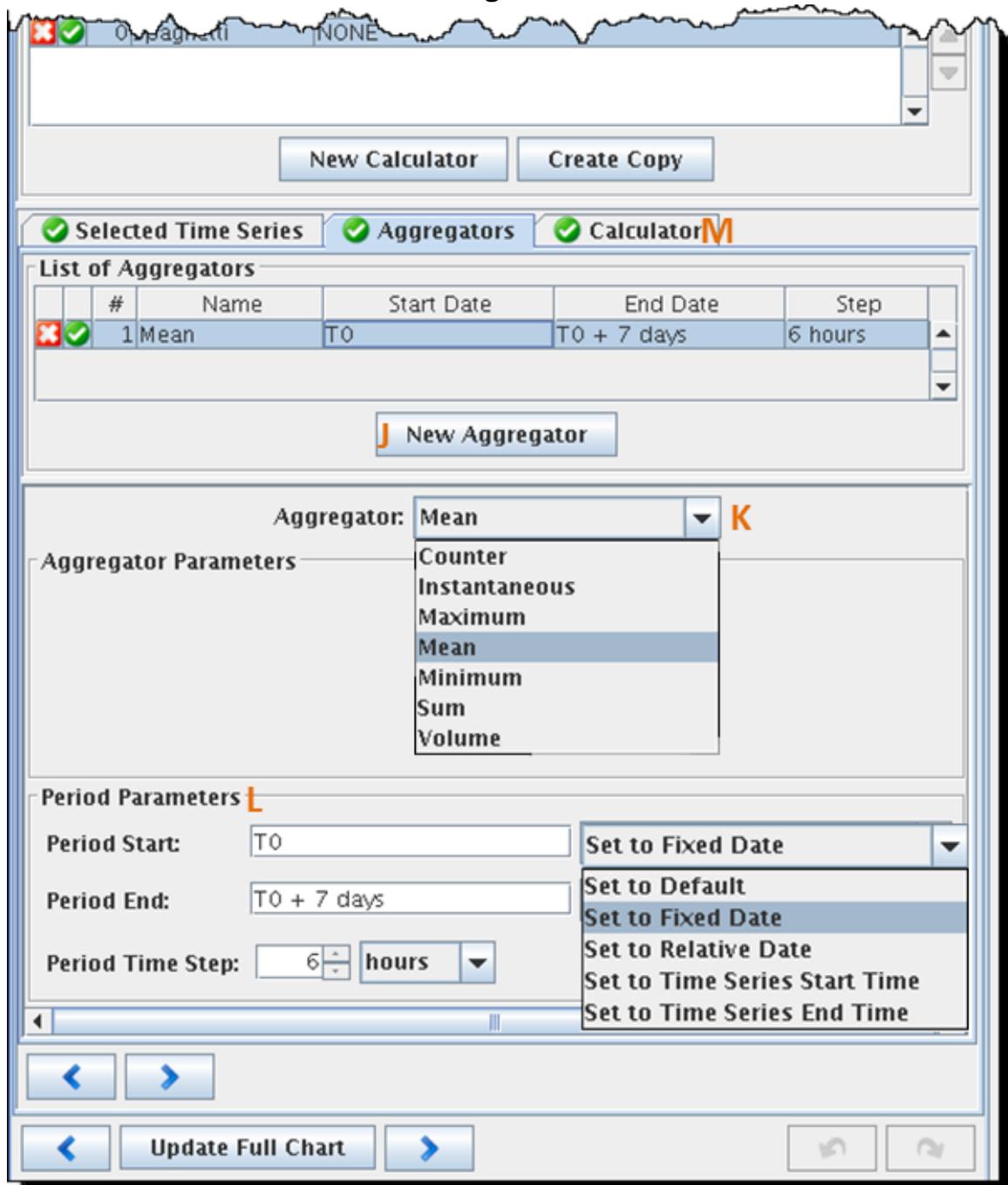
Step	Action	Notes												
1	Click the New Calculator button or the Create Copy button.	Labeled G on Figure 2.												
2	Click the All Available button to add a chart series.	Labeled H on Figure 2.												
3	Check the boxes in the Available table for each row to be included in the time series selection. Uncheck the boxes of elements that do not need to be included.													
	 <p>The screenshot displays two panels. The top panel, 'Time Series Selections', contains a table with the following data:</p> <table border="1"> <thead> <tr> <th>#</th> <th>Loc</th> <th>Qual</th> <th>Param</th> <th>Ens</th> <th>Index</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-any-</td> <td>-any-</td> <td>-any-</td> <td>ESP</td> <td>-any-</td> </tr> </tbody> </table> <p>Below the table are three buttons: 'New Selection', 'Selected Available', and 'All Available'. The bottom panel, 'Time Series Available', has checkboxes for 'Loc', 'Qual', 'Param', 'Ens' (checked), 'Mem Index', and 'T0'. Below these is a list with 'Ens' and 'ESP' (checked).</p>	#	Loc	Qual	Param	Ens	Index	1	-any-	-any-	-any-	ESP	-any-	
#	Loc	Qual	Param	Ens	Index									
1	-any-	-any-	-any-	ESP	-any-									
4	Click the Aggregators panel.	Labeled I on Figure 2.												

Figure 2



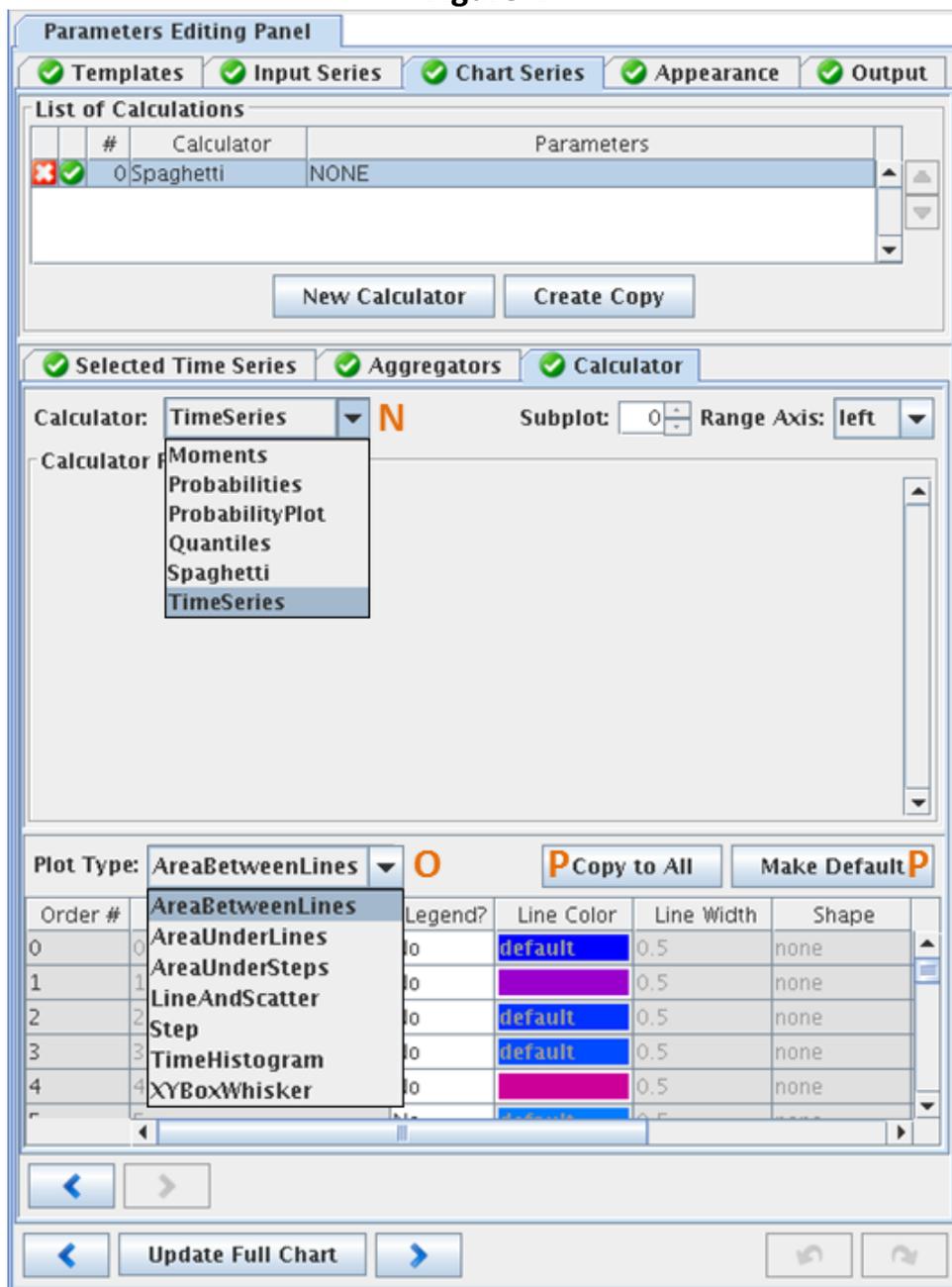
Step	Action	Notes
5	Choose New Aggregator .	Labeled J on Figure 3.
6	Choose an aggregator from the pull down menu.	Labeled K on Figure 3.
7	If using the Counter option, also choose the counter type, flag, and assign a numeric threshold value.	Optional
8	Select the time options in the Period Parameters section.	Labeled L on Figure 3.
9	Click the Calculator tab.	Labeled M on Figure 3.

Figure 3



Step	Action	Notes
11	Choose a Calculator from the pull down menu. Parameters vary depending on selection in pull down menu.	Labeled N in Figure 4.
12	Specify the index of the subplot within the chart.	The top subplot is "0".
13	Select a plot type from the pull down menu.	Labeled O in Figure 4.
14	Modify the appearance of plotted series by editing the Series Parameters Table. <ul style="list-style-type: none"> Click Copy to All to make all series appear the same as the one selected series (row). Click Make Default to reset selected series (rows) to the default appearance. 	Labeled P in Figure 4.

Figure 4



STEP 4 Save and Upload the Template

Step	Action	Notes
1	Click the Save as Template icon. Specify a new name if editing a new product.	
2	In the GraphGen Tree GUI, click the Upload Products and Settings button.	
3	From the Confirm Upload GUI, click Yes to continue.	
4	Click OK to dismiss the Upload Successful GUI. 	

Building and Editing Product Templates

Objective: Build or edit a Graphics Generator product template.

Notes: Graphics Generator **must** be configured on the CHPS Stand Alone instance. Edit the product in the order used in this job sheet.

STEP 1 Locate a Product Template

Step	Action	Notes
1	Open the Stand Alone instance of CHPS configured for Graphics Generator.	
2	Click the GraphGen Editor icon or from the IFD Tools menu, select GraphGen Editor .	
Build		Edit
1	Click the Data Viewer panel.	1 Click the Load Product or Template icon. 
2	Click the forecast group folder to expand.	2 Select a product from the list on the Template and Product Manager window.
3	Select a segment from the panel.	3 Click Open .
4	Click the New button in the Editor Tool Bar . 	

STEP 2 Specify Templates to Apply (optional)

Step	Action	Notes
1	Click the Templates tab.	
2	Click the New icon.	
3	Click the Load button in the Referenced Template ID section of the GUI to select a template.	This opens the Open Template dialog.
4	Choose a template from a table of Existing Templates .	
5	Click OK .	

STEP 3 Specify Input Time Series

Note: Charts are added in reverse order; the first set of chart series overlays the second.

Step	Action	Notes
1	Click the Input Series panel on the GraphGen Editor GUI.	Labeled A on Figure 5.
2	Click New Provider (add information manually) or Add from Data Viewer (to populate from the selected segment) to add a new input time series.	Labeled B on Figure 5.
3	Select a provider from the Select Provider pull down menu.	Labeled C on Figure 5.
4	Remove unwanted time series by clicking the red X beside a time series, or click the Remove All button.	Optional
5	Click the Use Display Units box to convert the data to display units.	Optional
6	Click the Include Thresholds box to load thresholds associated with the time series.	Optional
7	Click the Set to Default buttons to use arguments instead of hard coded locations.	Optional
8	Click the Provider Options boxes to override the start, end, and T0 times.	Labeled D on Figure 5.
9	Use the pull down menus (labeled E on the graphic) to choose relative or fixed dates.	Labeled E on Figure 5. Default is also an option for T0.
10	Click the Chart Series panel.	Labeled F on Figure 5.

Figure 5

Parameters Editing Panel

Templates
Input Series A
Chart Series F
Appearance
Output

List of Input Series Providers

	#	Provider Name	Parameters
✖	1	SelectTimeSeries	locationId = AGYM7; parameterId = SSTG; filterId = MBRFC_Stages

New Provider
Add from Data Viewer
Remove All

Select Provider: SelectTimeSeries C
 Use Display Units Include Thresholds

Provider Options

<input checked="" type="checkbox"/> Override filterId	<input type="text" value="MBRFC_Stages"/>	
<input checked="" type="checkbox"/> Override locationId	<input type="text" value="AGYM7"/>	Set to Default
<input checked="" type="checkbox"/> Override parameterId	<input type="text" value="SSTG"/>	Set to Default
<input type="checkbox"/> Override startTime	<input type="text" value="T0"/>	Set to Relative Date ▼
<input type="checkbox"/> Override endTime	<input type="text" value="T0 + 10 days"/>	Set to Relative Date ▼
<input type="checkbox"/> Override T0	<input type="text" value="T0"/>	Set to Default ▼

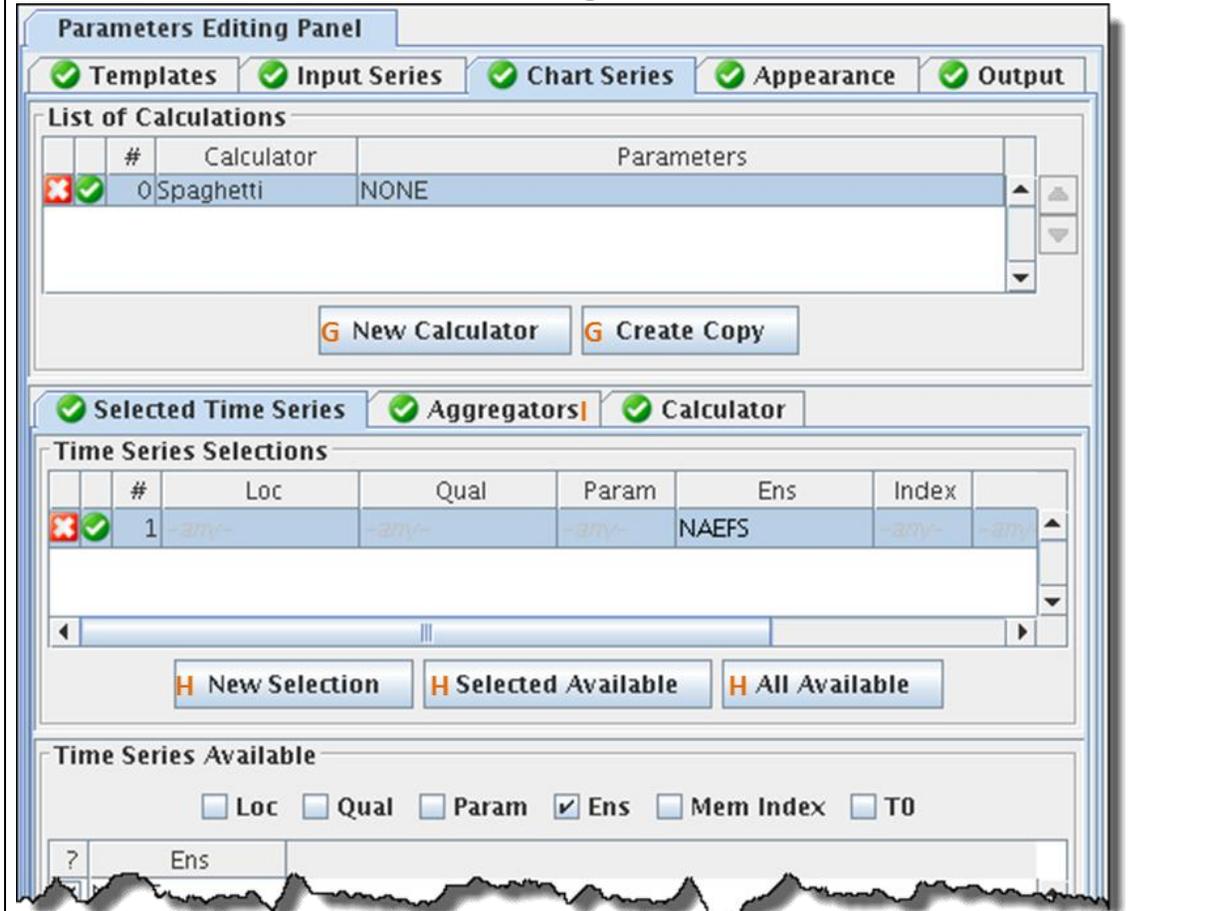
D E

⏪ ⏩
↺ ↻

STEP 4 Specify the Calculations for Each Chart Series

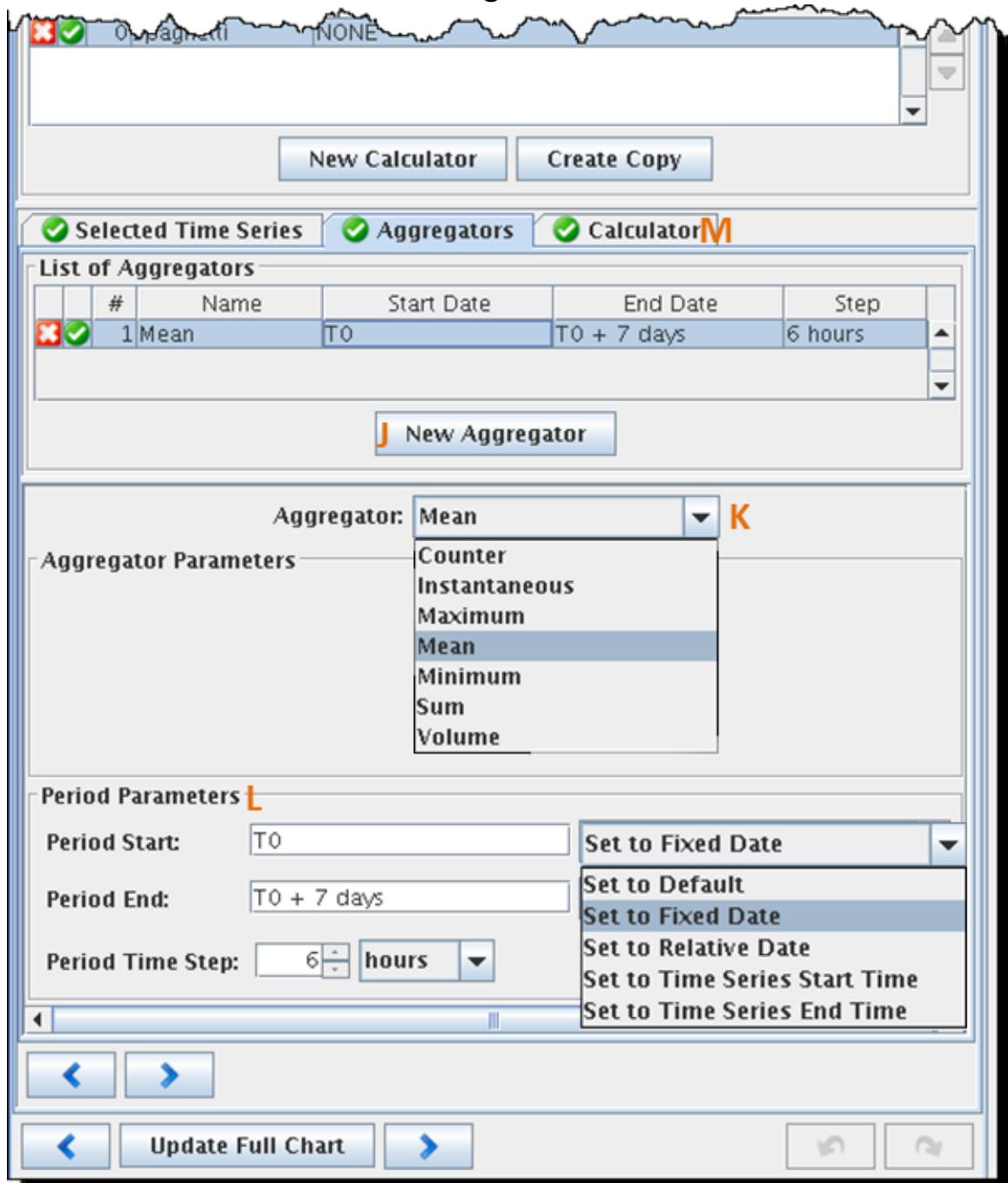
Step	Action	Notes
1	Click the New Calculator button or the Create Copy button.	Labeled G on Figure 6.
2	Click the All Available button to add a chart series.	Labeled H on Figure 6.
3	Check the boxes in the Available table for each row to be included in the time series selection. Uncheck the boxes of elements that do not need to be included.	
4	Click the Aggregators panel.	Labeled I on Figure 6.

Figure 6



Step	Action	Notes
5	Choose New Aggregator .	Labeled J on Figure 7.
6	Choose an aggregator from the pull down menu.	Labeled K on Figure 7.
7	If using the Counter option, also choose the counter type, flag, and assign a numeric threshold value.	Optional
8	Select the time options in the Period Parameters section.	Labeled L on Figure 7.
9	Click the Calculator tab.	Labeled M on Figure 7.

Figure 7



Step	Action	Notes
11	Choose a Calculator from the pull down menu. Parameters vary depending on selection in pull down menu.	Labeled N in Figure 8.
12	Specify the index of the subplot within the chart.	The top subplot is "0".
13	Select a plot type from the pull down menu.	Labeled O in Figure 8.
14	Modify the appearance of plotted series by editing the Series Parameters Table. <ul style="list-style-type: none"> • Click Copy to All to make all series appear the same as the one selected series (row). • Click Make Default to reset selected series (rows) to the default appearance. 	Labeled P in Figure 8.
15	Click the Appearance tab.	Labeled Q in Figure 8.

Figure 8

Parameters Editing Panel

✔ Templates
✔ Input Series
✔ Chart Series
✔ Appearance **Q**
✔ Output

List of Calculations

	#	Calculator	Parameters
✖	0	Spaghetti	NONE

New Calculator
Create Copy

✔ Selected Time Series
✔ Aggregators
✔ Calculator

Calculator: TimeSeries **N**
Subplot: 0
Range Axis: left

- Moments
- Probabilities
- ProbabilityPlot
- Quantiles
- Spaghetti
- TimeSeries

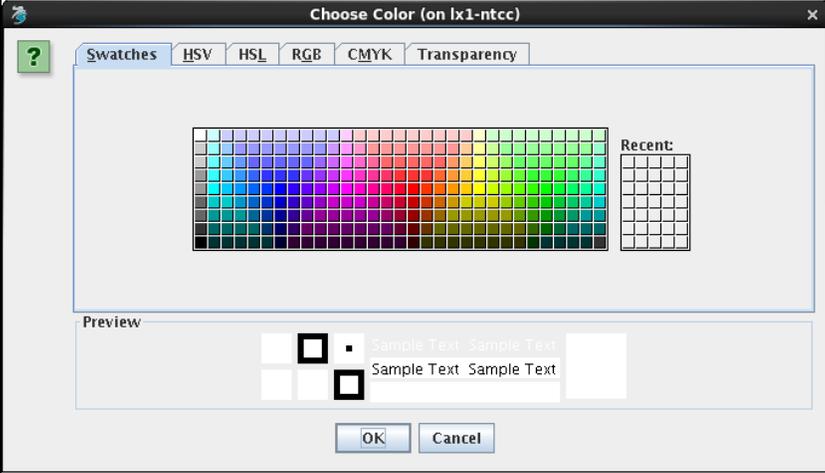
Plot Type: AreaBetweenLines **O**
Copy to All
Make Default

Order #	#	Plot Type	Legend?	Line Color	Line Width	Shape
0	0	AreaBetweenLines	0	default	0.5	none
1	1	AreaUnderLines	0		0.5	none
2	2	AreaUnderSteps	0	default	0.5	none
3	3	LineAndScatter	0	default	0.5	none
4	4	Step	0	default	0.5	none
5	5	TimeHistogram	0	default	0.5	none
6	6	XYBoxWhisker	0		0.5	none

Update Full Chart

STEP 5 Modify Appearance

Note: Changes to appearance modifiers override the default appearance values.

Step	Action	Notes
1	Double click General on the left side of the tab.	Labeled R in Figure 9.
2	Click the User Specified radio button, and double click the swatch to change the default chart background color.	Labeled S in Figure 9.
3	Choose a color from the Swatches tab, or click the other tabs to choose HSV, HSL, RGB, or CMYK and on the last tab, choose a transparency. 	0 is completely opaque and 225 is completely transparent.
4	Use the same method to change the plot area background color.	Labeled T in Figure 9.
5	Select a background image by clicking the radio button next to User Specified .	Labeled U in Figure 9.
6	Click Select , and use the GUI to navigate to the image file.	
7	Choose an image alignment from the drop down menu.	
8	Click the User Specified radio button to change the default grid line style and width.	Labeled V in Figure 9.
9	Select a default time zone from the pull down menu.	Labeled W in Figure 9.
10	Edit other appearance modifiers as needed. See the Graphics Generator Reference Manual section 12 for specific information.	
11	Click the Output tab.	Labeled X in Figure 9.

Step	Action	Notes
Figure 9		
<div style="border: 1px solid gray; padding: 5px;"> <div style="border-bottom: 1px solid gray; padding-bottom: 5px;"> Parameters Editing Panel </div> <div style="display: flex; border-bottom: 1px solid gray; padding-bottom: 5px;"> <input checked="" type="checkbox"/> Templates <input checked="" type="checkbox"/> Input Series <input checked="" type="checkbox"/> Chart Series <input checked="" type="checkbox"/> Appearance <input checked="" type="checkbox"/> Output X </div> <div style="display: flex;"> <div style="width: 25%; border-right: 1px solid gray; padding-right: 5px;"> <ul style="list-style-type: none"> Parameters <ul style="list-style-type: none"> General R Subplot 0 (Top) <ul style="list-style-type: none"> Left Axis Right Axis PlotTitle Legend Thresholds Domain Axis Subtitles </div> <div style="width: 75%; padding-left: 5px;"> <div style="border-bottom: 1px solid gray; padding-bottom: 5px;"> <p>Select Chart Background Color S</p> <p><input type="radio"/> Default <input checked="" type="radio"/> User Specified <input style="width: 30px; height: 20px;" type="text"/></p> </div> <div style="border-bottom: 1px solid gray; padding-bottom: 5px;"> <p>Select Plot Area Background Color T</p> <p><input checked="" type="radio"/> Default <input type="radio"/> User Specified <input style="width: 30px; height: 20px;" type="text"/></p> </div> <div style="border-bottom: 1px solid gray; padding-bottom: 5px;"> <p>Select Background Image U</p> <p><input checked="" type="radio"/> Default <input type="radio"/> User Specified</p> <p>Select File: <input style="width: 150px;" type="text"/></p> <p>Image Alignment: Default (FIT) ▼</p> </div> <div style="border-bottom: 1px solid gray; padding-bottom: 5px;"> <p>Select Grid Line V</p> <p><input checked="" type="radio"/> Default <input type="radio"/> User Specified</p> <p>Dashed Line? Yes (Default) ▼ Line Width: <input style="width: 50px; text-align: center;" type="text" value="0.5"/></p> </div> <div style="padding-bottom: 5px;"> <p>Select Time Zone W</p> <p><input checked="" type="radio"/> Default <input type="radio"/> User Specified</p> <p>Time Zone: GMT ▼</p> </div> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> ◀ Apply Modifiers ▶ ↶ ↷ </div> </div>		

STEP 6 Specify Output (for products generated via a workflow)

Step	Action	Notes
1	Click the New Output Generator radio button to add an output generator to a product template.	Labeled Y in Figure 10.
2	Select an output type from the Output Type box. 	Labeled Z in Figure 10.
3	Click the Preview Output Button preview the output in the Current Display Panel .	Labeled AA in Figure 10.
4	Specify the output parameters, including the file name, in the Output Parameters Panel .	
5	Click Select to navigate to the output directory, and specify a file name for the output.	Labeled BB in Figure 10.
6	Click the Generate Output button.	Labeled CC in Figure 10.
7	Click OK to dismiss the Successfully Generated Output dialog. 	

Step	Action	Notes						
Figure 10								
<div style="border: 1px solid gray; padding: 5px;"> <div style="border-bottom: 1px solid gray; padding-bottom: 5px;"> Parameters Editing Panel </div> <div style="border-bottom: 1px solid gray; padding-bottom: 5px;"> <input checked="" type="checkbox"/> Templates <input checked="" type="checkbox"/> Input Series <input checked="" type="checkbox"/> Chart Series <input checked="" type="checkbox"/> Appearance <input checked="" type="checkbox"/> Output </div> <div style="border-bottom: 1px solid gray; padding-bottom: 5px;"> <p>List of Output Generators</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30px;">#</th> <th style="width: 30%;">Output Type</th> <th style="width: 30%;">Output File Name</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td>Image</td> <td style="text-align: center;">-none-</td> </tr> </tbody> </table> </div> <div style="border-bottom: 1px solid gray; padding-bottom: 5px; text-align: right;"> <input type="button" value="New Output Generator"/> Y </div> <div style="border-bottom: 1px solid gray; padding-bottom: 5px;"> <p>Output Type: Image Z CC <input type="button" value="Generate Output"/></p> </div> <div style="border-bottom: 1px solid gray; padding-bottom: 5px;"> <p>Select BB File: <input style="width: 80%;" type="text"/></p> <p>Evaluated Name: <input style="width: 80%;" type="text"/></p> <p><input type="checkbox"/> Override Image Width: <input style="width: 50px; text-align: center;" type="text" value="500"/></p> <p><input type="checkbox"/> Override Image Height: <input style="width: 50px; text-align: center;" type="text" value="400"/></p> </div> <div style="border-bottom: 1px solid gray; padding-bottom: 5px; text-align: center;"> <input type="button" value="Preview Output"/> AA </div> </div>			#	Output Type	Output File Name	1	Image	-none-
#	Output Type	Output File Name						
1	Image	-none-						

STEP 7 Save and Upload the Product

Step	Action	Notes
1	Click the Save as Product icon. Specify a new name if editing a previous product.	
2	In the GraphGen Tree GUI, click the Upload Products and Settings button.	
3	From the Confirm Upload GUI, click Yes to continue.	
4	Click OK to dismiss the Upload Successful dialog.	

Managing Graphics Generator Templates

Note: This job sheet assumes Graphics Generator has been configured for both the host Stand Alone and the target Stand Alone.

Copying Product and Referenced Templates

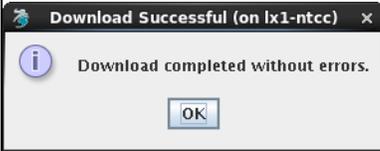
Step	Action	Notes
1	Open the host Stand Alone instance of CHPS.	
2	Click the GraphGen Editor icon, or from the IFD menu, select GraphGen Editor .	
3	Click the GraphGen Tree panel to make it active.	
4	Click the Product and Template Manager icon.	
5	Select the template(s) to export.	
6	Click Export .	
7	Click Yes to export selected templates.	
8	From the Select Export File GUI, navigate to desired directory.	
9	Type a filename for the file in the text entry box.	System automatically adds the file extension.
10	Click Open to save the exported file to the backup directory.	
11	Close the host instance of the Stand Alone.	
12	Open the target Stand Alone instance of CHPS.	
13	Click the GraphGen Tree panel to make it active.	
14	Click the Product and Template Manager icon.	
15	Click Import .	
16	Navigate to the directory storing the host Stand Alone files.	
17	Select the file, and click Open .	The template appears at the top of the list.
18	Click Close to dismiss the Product and Template Manager .	

Uploading Templates and Settings

Step	Action	Notes
1	Open the Stand Alone instance of CHPS.	
2	Click the GraphGen Tree panel to make it active.	
3	Click the template(s) to upload.	
4	Click the Upload Products and Settings icon.	
5	Confirm the upload by clicking Yes .	
6	Click OK to dismiss the Upload Successful dialog.	

Downloading Templates and Settings

Step	Action	Notes
1	Open the Stand Alone instance of CHPS.	
2	Click the GraphGen Tree panel to make it active.	
3	Click the template(s) to upload.	
4	Click the Download Products and Settings icon.	
5	Confirm the upload by clicking Yes .	
6	Click OK to dismiss the Download Successful dialog.	



Backing Up Files

Step	Action	Notes
1	Navigate to a directory on the system where you want to store the files.	
2	Make a directory for the backup files. mkdir gg_backups_10mar14	Consider including the date in a logical name for the new directory.
Using Graphics Generator		Command Line
1	Open the Stand Alone instance of CHPS.	1
2	Click the GraphGen Tree panel to make it active.	2
3	Click the Product and Template Manager icon.	Copy the OHD_GRAPHGEN_PRODUCTS_AND_SETTINGS.xml file to the backup directory.
4	Select the template(s) to export.	
5	Click Export .	
6	Click Yes to export selected templates.	
7	From the Select Export File GUI, navigate to the backup directory.	
8	Type a filename for the file in the text entry box.	
9	Click Open to save the exported file to the backup directory.	

Deleting Reference or Product Templates

Step	Action	Notes
1	Complete all steps in the Backing Up Files section of the job sheet.	Highlight all files to do a complete backup.
2	Click the Product and Template Manager icon.	
3	Select the file to delete.	
4	Click the Remove button.	
5	Click Yes to confirm file deletion.	

Reporting Problems on FogBugz

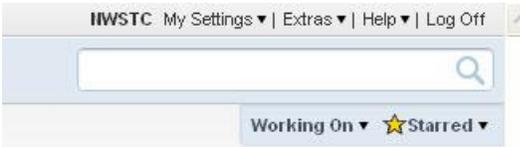
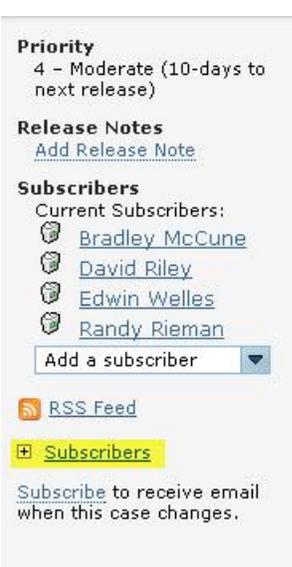
Objective: Report issues on the FogBugz web site, providing as much pertinent information as possible.

STEP 1 Log On to the FogBugz Website

Step	Action	Notes
1	From an internet browser, go to Schuylkill.nws.noaa.gov:7069	If the page does not load, send it again.
2	Log in using the RFC username and password. 	Box is in the upper right corner.

STEP 2 Search for Relevant Cases

Note: In Internet Explorer, the search function only works in Compatibility mode.

Step	Action	Notes
1	Type a keyword associated with the topic/problem in the upper right search box. 	Documents will be listed first, then cases.
2	If a case is located, look through the status to see if it is still in progress or has been solved. Also, check the notes in the case.	
3	Track the progress of cases similar to the problems at your RFC by clicking the Subscribe button on the left side. 	
4	If the search yields no similar cases, add a case.	

STEP 3 Submit a New Case

Step	Action	Notes
1	Click New Case on the top navigation bar.	
2	Name the case the main topic of the problem.	Labeled 1 on Figure 11.
3	Select CHPS-bugz in the Project drop down menu.	Labeled 2 on Figure 11.
4	Select the area relating to the issue.	Labeled 3 on Figure 11.
5	Choose a category.	Labeled 4 on Figure 11.
6	Enter your name.	Labeled 5 on Figure 11.
7	Enter your RFC ID.	Labeled 6 on Figure 11.
8	Describe the issue, in depth. Make sure to note where, when, how, what directories or files are involved, and its impact.	Labeled 7 on Figure 11.
9	Set a priority.	Labeled 8 on Figure 11.
10	Make sure to include tags for easier searching.	Labeled 9 on Figure 11.
11	Change the priority, add more users, and attach a file.	Labeled 10 on Figure 11.
12	Click OK .	Labeled 11 on Figure 11.

Figure 11

The image shows a web-based form for creating a bug report. The form is titled "Figure 11" and contains several fields and sections. The fields are numbered 1 through 11:

- 1**: Title text input field.
- 2**: Project dropdown menu, currently showing "CHPS-bugz".
- 3**: Area dropdown menu, currently showing "OHD Software".
- 4**: Category dropdown menu, currently showing "Bug".
- 5**: Name text input field.
- 6**: RFC text input field.
- 7**: Description of Problem text area.
- 8**: Priority dropdown menu, currently showing "4 - Moderate (10-day)".
- 9**: Tags text input field.
- 10**: Attach a file button.
- 11**: OK button.

Other visible elements include:

- Milestone dropdown menu showing "Undecided".
- Assigned To dropdown menu showing "Primary Contact (HSD C)".
- Status dropdown menu showing "*New*".
- Notify More Users text input field.
- Opened by NWSTC 4/2/2014 (Today) 11:28 AM.
- Plain text and Rich text options for the description area.
- Add Fields button.
- Cancel button.